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ABSTRACT

A study measured student awareness of a variety of reading and study skill elements: author attitude and bias, signal words, vocabulary, organizing to read, notetaking, mental imagery, and reading flexibility. It also established a reliability coefficient for the Survey of Study-Reading Habits instrument, a 15-item, 4-point Likert type scale designed to record responses to these elements. Subjects, 26 college undergraduates, were split into equal control and treatment groups of 13 students each. The treatment group was enrolled in an analytical reading course and the control group was enrolled in a college reading course. Both groups took the Survey of Study-Reading Habits as a pretest and retook it at the end of 6 weeks. Analysis of the data obtained from the tests revealed no significant differences between the treatment and the control groups. The instrument's reliability coefficient of .63, however, indicates that it can be used to measure perceived class effectiveness in reading and study skills. Different results might be obtained with a larger sample size treated over a longer period. (Tables of results and the instrument are included) (JL)

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An Analysis of Reading and Study Skills Elements

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An Analysis of Reading and Study Skills Elements

Introduction

Teaching college students how to read has become commonplace in many institutions of higher learning. Given the open-door policy and the decline in student enrollment, it appears as if many institutions of higher learning are being forced to accept and educate those students whose reading levels are below the level of prepared college materials. Reading courses such as speed reading, analytical reading and college reading are becoming widespread as the courses that will alleviate basic reading problems and develop the necessary study skills that will enable students to cope with college level material. The student population for these various reading courses ranges from those students who have been advised to take specific reading courses because they have severe reading problems to those students whose deficiencies are minimal but who enroll in such courses for self-help.

In one University an analytical reading course was designed to meet the needs of its students. Specifically, the following reading and study skills elements from that course were included: author attitude and bias, signal words, vocabulary, organizing to read, notetaking, mental imagery, and reading flexibility. Support for these elements were identified from the literature as important areas for college students to be aware of in order to master college level reading material. A discussion of the elements follows.

In the first element the two components, author attitude and bias, suggest an interrelatedness. An author's attitude, i.e., his/her personal feelings toward a subject (Adams and Spira, 1971), is invariably reflected

in his/her delivery system, i.e., the subject matter written by him/her. For example: an author's attitude about the Holocaust may be reflected in his/her written text. As the reader reads the text he/she may sense the author's biases or prejudices. Subsequently, the reader's understanding of that information could be influenced by the author's biases.

Other factors which tend to influence the understanding of written text are signal words and significant vocabulary words. Signal words or word connectives and significant vocabulary words enhance the reader's flow of thought and make the meaning clear. Miccinati (1976) measured the influence of signal words on comprehension by asking a group of freshman community college students who were both high and low achievers to read a series of commercially prepared paragraphs containing signal words. Subsequently, the students were tested on modified versions of each paragraph containing no signal words. Reported results of this study indicated that signal words are as important as heading or subheading divisions of reading selections. Also, knowing significant vocabulary can enhance the reader's understanding of the meanings of thousands of words. Rubin (1978) stated that the knowledge of 30 combining forms, i.e., prefixes, suffixes, and root words, can unlock the meaning of as many as 14,000 words. When college students either ignore or do not recognize the importance of signal words, significant vocabulary words, or word forms, their understanding or comprehension of written text suffers. In a study with 150 college seniors Mutchler (1978) found a positive relationship between vocabulary and comprehension.

Mutchler's study along with others indicates the importance of vocabulary for text comprehension.

Two other reading and study skills elements are organizing to read and notetaking. These elements or skills, widely researched, have been found to be aids to memory and retention. In an early study, McClusky (1934) explainedthat the prereading or organizing to read process helps students recognize structure; moreover, they put emphasis on selecting that information in the text which fulfills their purpose. Two later studies cited by Meyer (1975) which support McClusky investigated the relationship between what people remember from passages and the structure of those passages. Three conclusions from those studies show that (1) brief scanning reveals the structure; (2) recognizing structural patterns helps in understanding why topic sentences are best placed in the beginning of paragraphs -- since top level structure is not easily recalled; and (3) recognizing structure helps students select those types of information which fulfill their purpose.

Recognizing structure may also help college students with notetaking which both observation and research reveals to be a universal practice among college students. Palmatier and Bennett (1974) found that 99% of college students questioned take lecture notes and 71% take reading notes; 96% feel that notetaking is essential for retention. Why is notetaking so effective? Santa, Abrams and Santa (1979) concluded that recall of details is improved when both good and poor students take notes. The best performance is obtained when good readers take unrestricted notes and are allowed

to review those notes. Such review involves the sorting and abstracting of information presumably to recognize and create structure for the top level information. Since notetaking involves actively sorting and abstracting materials in order to write down the more important points, it creates a higher order retrieval cue structure that can be used at a later time to generate more subordinate information.

Since it is assumed that mental imagery will improve comprehension, or that a person will remember a picture or concrete words more quickly than abstract words, mental imagery was explored. According to Paivio's (1971) dual-coding model of comprehension, imagery and verbal processes are independent but interconnected systems. However, Westphal (1979), Tirre and Manilis (1979), and Cramer (1979) found a negative correlation between imaging and comprehension. These seemingly conflicting views provided a rationale for including imagery in this study.

The final reading and study skills element explored was reading flexibility. Many college students assume that reading faster will make them better readers. Scales (1978) pointed out the necessity to inform students of the need to become flexible, i.e., to adjust their reading rate to the task at hand. Mutchler (1978) found no evidence to support the contention that the good student reads either rapidly or slowly, but Dee-Lucas' study (1979) demonstrated that college students were flexible in their reading when there was an unconnected payoff; the payoff was money. When both speed and accuracy were measured in her study, the students who read slowly earned as much money as the students who read fast, thereby suggesting that reading rate is flexible and readily adjusted for optimum performance to the task at hand.

Problem

The reading and study skills elements discussed above established the basis for the development of the Survey of Study-Reading Habits instrument (see Appendix) and the following hypotheses: (1) there will be a significant difference between the treatment and the control groups; pretest and posttest scores on the Survey of Study-Reading Habits; (2) the reliability coefficient established for the Survey of Study-Reading Habits instrument will be equal to or less than .50.

Purpose

The purpose of this study was to measure student self-awareness of identified reading and study skills elements in a college analytical reading course, and to establish reliability for the Survey of Study-Reading Habits instrument.

Subjects

The subjects were twenty-six undergraduate university students enrolled in reading skills courses at a major university in Western Pennsylvania. The treatment group consisted of thirteen students enrolled in an analytical reading course. The control group consisted of thirteen students enrolled in a college reading course. Both groups of students elected to register into the courses to improve their skills in reading. Analytical reading focused on the analysis of specific course content. The course content, supplied by students, related to areas such as author's attitude and bias, vocabulary, and reading flexibility. The college reading course focused on the understanding of college material, supplied by the instructor, as it related to the literal, inference and applied levels of reading. Prerequisites in reading were not required for entrance into either course. Each course was a three credit course and continued for a full academic semester.

Procedures

Thirteen students who registered for a college analytical reading course (Treatment Group) were administered the Survey of Study-Reading Habits as a pretest measure prior to instruction in the following reading skills:

author attitude and bias, signal words, vocabulary, organizing to read, note-taking, mental imagery and reading flexibility. Even though the students attended class for fifteen weeks, only six weeks were devoted to those reading skills. During those six weeks the students participated in regular class activities designed to improve those skills. Textbook assignments/exercises, lectures with discussion, and teacher-made assignments that required application of skills to new materials were the means of instruction. The Survey of Study-Reading Habits was readministered as a posttest measure at the end of the sixth week.

Thirteen other students who registered for a college reading course (Control Group) were administered the Survey of Study-Reading Habits as a pretest measure and again at the end of the sixth week as a post-test measure. These students received no instruction in the reading skills identified above.

Instrument

The Survey of Study-Reading Habits (see appendix) is a fifteen item four point Likert type scale designed for the recording of college students' responses about author attitude and bias, signal words, vocabulary, organizing to read, notetaking, mental imagery and reading flexibility. Choices of responses include ALWAYS, FREQUENTLY, RARELY, and NEVER. Even though there was no time period specified for working through the Survey, students in this study were able to read and respond to all items in less than fifteen minutes. Therefore, it was concluded that a maximum of fifteen minutes be allowed for working through the Survey. The Survey's test-retest reliability coefficient was established in this study.

Limitations

Due to the specific nature of information sought from this study, standardized instruments examined were found to be inappropriate. The Survey of Study-Reading Habits was, therefore, designed to elicit those responses to specific questions asked. Secondly, thirteen students represented the average class size for both the analytical reading class and the college reading class even though the total number of subjects for this study might be considered small.

Data Analysis

The Survey of Study-Reading Habits was administered as a pretest and post-test measure to the treatment and control groups. The posttest scores of both groups were analyzed by Analysis of Covariance. Pretest scores served as the statistical covariate to control for initial group differences.

Insert Table One about here

Table One shows that the overall F-Ratio of 3.26 was not statistically significant, therefore we reject the hypothesis and conclude that there is no significant difference between the treatment and control groups. The F statistic does, however, indicate that the covariate was significantly co-related with the dependent variable of posttest scores and, as such, was useful as a predictor of posttest outcomes.

Insert Table Two about here

Identical gain scores of 3.54 are reported for both treatment and control groups, in Table Two, thus confirming no difference in pretest-posttest gain scores. Since only six weeks elapsed between pretest-posttest for both groups, the gain score of 3.54 was accepted as a positive indication of improvement. It is noted, however, that the treatment during this time had no apparent statistically significant effect since the gain scores for both groups were identical.

The Pearson Correlation Coefficient was obtained for the control group in order to determine if a statistically significant relationship existed between pretest and posttest scores. Table Three shows that the reported correlation coefficient of .63 was statistically significant at .05 level.

Insert Table Three about here

The test-retest reliability coefficient established at .63 for the Survey of Study-Reading Habits was greater than .50, and as such, the original hypothesis must be rejected.

Conclusions and Implications

The data obtained from the Survey of Study-Reading Habits revealed no significant difference between treatment and control groups as determined by Analysis of Covariance. Furthermore, mean score gains for both groups were identical thus confirming no difference between groups. The Pearson Correlation Coefficient obtained for the control group was significant at the .05 level, and established a reliability coefficient of .63 for the

Survey of Study-Reading Habits instrument. It can be conluded that the Survey of Study-Reading Habits instrument can be used to measure perceived class effectiveness in reading and study skills. Also, based on student responses to the Survey of Study-Reading Habits instrument it appears that the instructional treatment that was designed to make college students more efficient readers through proper identification and increased skill utilization in author attitude and bias, signal words, vocabulary, organizing to read, notetaking, mental imagery and reading flexibility was ineffectual. (It is noted that the Survey of Study-Reading Habits does not measure achievement in the reading and study skill areas identified above but rather measures student self-awareness toward the various elements).

The implications for further study would suggest enlarging the sample size and extending the instructional treatment for at least fifteen weeks which would be equivalent to an academic semester.

Table One. Analysis of Covariance
Summary Table for Survey of
Study-Read Habits

Source	df	Adjusted Sum Squares	Adjusted Mean Squares	F Ratio
Between Groups	1	197.63	197.63	3.26
Within Groups	23	1394.49	60.63	
Total	24			

Table Two. Pretest - Posttest Means and Standard Deviations

	PRETEST	
	Treatment Group	Control Group
Mean	45.54	46.38
S. D.	6.04	6.39
N.	13	13
	POSTTEST	
Mean	49.08	49.92
S.D.	9.99	6.74
N.	13	13
Pretest - Posttest Gain Score	3.54	3.54

Table Three. Pearson Correlation Coefficient

	Pretest Subjects	Posttest Subjects	df	Pearson Correlation Coefficient
Control Group	13	13	2	0.6329 *

* .05 Level

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APPENDIX

Date

Grade

Survey of Study-Read Habits

Directions:

Please respond to each item below by placing a check mark in the appropriate box. There are no right or wrong answers. Please respond only once to each item.

Descriptors

A. Always
B. Frequently
C. Rarely
D. Never

	A	B	C	D
1. I think all authors write from a biased point of view.				
2. I think about authors' attitude in the material that I read.				
3. I look for words that will signal me to speed up, slow down or pause while I am reading.				
4. I think about the authors' opinions while I am reading.				
5. I think about the connotative meanings of words while I am reading.				

	A	B	C	D
6. Whenever I am assigned a chapter to read, I skim the entire chapter before reading straight through until I finish.				
7. I use a notetaking system that enables me to take notes while I am reading.				
8. I take notes while reading for my courses.				
9. My notes are complete enough to ensure that by reviewing them, I understand what I had read.				
10. While I am reading, I formulate images of what I am reading in my mind.				
11. Prior to reading my textbooks, I skim to formulate study questions for the material to be read.				
12. I understand the figurative language encountered in my textbooks.				
13. I utilize my knowledge of prefixes and suffixes to help me unlock the meanings of many words in my textbooks.				
14. I think euphemisms are used by authors to simplify written paragraphs.				
15. Depending upon the materials I read, I adjust my reading speed.				